

IN THE CLAIMS:

Claims 1-15 (Previously canceled)

Claims 16-20 (Canceled)

Claims 21-22 (Previously canceled)

Claim 23-25 (Canceled)

Claim 26 (New): A method for protecting a human patient or a mammalian animal to be subjected to chemotherapy treatment of a tumor not residing in the scalp or other region susceptible to chemotherapy-induced alopecia of the patient or the skin of the animal against chemotherapy-induced alopecia, the protective method consisting of administering an effective heat dose to the scalp or other region susceptible to chemotherapy-induced alopecia of the patient or the skin of the animal sufficiently prior to the administration of a chemotherapeutic drug whereby hair follicles in the scalp or other region susceptible to chemotherapy-induced alopecia of the patient or the skin of the animal are heated to and maintained at a temperature of about 39-45°C during about 15-120 minutes.

Claim 27 (New): The method of claim 26, wherein the heat dose is administered between 2 and 24 hours ahead of the administration of the chemotherapeutic drug.

Claim 28 (New): The method of claim 26, wherein the heat dose is administered between 6 and 12 hours ahead of the administration of the chemotherapeutic drug.

Claim 29 (New): The method of claim 26, wherein the heat dose is administered by a means selected from the group consisting of direct contact with heated surface or liquid, infrared radiation, microwave radiation, ultrasound and radiofrequency radiation.

Claim 30 (New): A method for protecting a human patient or a mammalian animal to be subjected to chemotherapy treatment of a tumor not residing in the scalp or other region susceptible to chemotherapy-induced alopecia of the patient or the skin of the animal against chemotherapy-induced alopecia, the protective method consisting of administering an effective heat dose to the scalp or other region susceptible to chemotherapy-induced alopecia of the patient or the skin of the animal sufficiently prior to the administration of a chemotherapeutic drug, wherein the effective heat dose is a dose equal or greater to that required to cause a detectable increase in the concentration of a stress protein selected from the group consisting of Hsp90, Hsp70, Hsp25-27 and P-glycoprotein in cells of hair follicles.

Claim 31 (New): The method of claim 30, wherein the heat dose is administered between 2 and 24 hours ahead of the administration of the chemotherapeutic drug.

Claim 32 (New): The method of claim 30, wherein the heat dose is administered between 6 and 12 hours ahead of the administration of the chemotherapeutic drug.

Claim 33 (New): The method of claim 30, wherein the heat dose is administered by a means selected from the group consisting of direct contact with heated surface or liquid, infrared radiation, microwave radiation, ultrasound and radiofrequency radiation.